

European Patent Application

"Instant Messaging System"

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### Claims:

1. System for transmitting messages over a multimedia network from a sending client to a target client, the messages comprising target client information,  
10 the system comprising:  
- a plurality of message gateways (3, 7, 8), each message gateway (3, 7, 8) being configured for the reception and/or transmission over at least one dedicated transfer medium, and  
- a message broker (1) connected to the message gateways (3, 7, 8) and being provided  
15 with a client database (2),  
wherein a first message gateway receives a message from a sending client over a first transfer medium and transmits the message and/or an information extracted thereof to the message broker (1), the message broker (1) automatically selects an appropriate second transfer medium depending on the content of the client database (2) and the  
20 supplied message and/or an information extracted thereof, and the message is sent to the target client by means of a second message gateway configured for a transmission over the second transfer medium selected by the message broker (1).
2. System according to claim 1,  
25 characterized by  
a common internal message format for the communication respectively between the message broker (1) and the message gateways.
3. System according to anyone of the preceding claims,  
30 characterized in that  
the message gateways are distributed over the network.

4. System according to anyone of the preceding claims,  
characterized in that  
the transfer media comprise analog and digital transfer media.
- 5 5. System according to anyone of the preceding claims,  
characterized by  
at least one message processor (4) provided between the first and the second message  
gateway for further processing the content of the message to be transmitted.
- 10 6. System according to anyone of the preceding claims,  
characterized in that  
the client database (2) comprises addresses of clients, client preferences and/or  
characteristics of the transfer network to the corresponding target client.
- 15 7. System according to anyone to the preceding claims,  
characterized in that  
the message broker (1) is designed to furthermore perform processing control and/or  
security processing.
- 20 8. System according to anyone to the preceding claims,  
characterized in that  
the message broker (1) is designed to furthermore perform accounting and/or billing.
9. System according to anyone of the preceding claims,  
25 characterized in that  
a plurality of message brokers (1, 1') is provided
10. System according to claim 9,  
characterized in that  
30 at least one message broker (1') being connected with a client database (2') with  
reduced capacity.

11. System according to anyone of the preceding claims,  
characterized in that  
the messages respectively contain a non-granted encrypted and a granted non-encrypted  
part.

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12. Message broker unit for a distributed multimedia system,  
characterized in that  
it is designed to autonomously select an appropriate transfer medium out of a plurality  
of transfer media for messages received from a sending client and to be transferred to a  
10 target client, wherein the message broker (1) is connected to a client database (2) and  
the transfer medium selection is performed depending on target client information and  
the content of the client database (2).

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13. Message broker unit according to claim 12,  
characterized in that  
the transfer medium selection is performed depending on the target network, the  
message type and/or client preferences contained in the client database.

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14. Message broker according to anyone of claims 12 or 13,  
characterized in that  
the messages respectively contain a non-granted encrypted and a granted non-encrypted  
part.

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15. Method for sending messages over a multimedia network from a sending client to a  
target client, the messages comprising target client information,  
the method comprising the following steps:

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- transmitting the message from the sending client to a message broker (1) over a first  
transfer medium, and
- transmitting the message to the target client over a second transfer medium, wherein  
the second transfer medium can be identical to the first transfer medium,  
wherein the message broker (1) selects an appropriate second transfer medium out of a  
plurality of transfer media depending on the content of a client database (2) connected  
to the message broker (1) and the target client information.

16. Method according to claim 15,  
characterized in that  
the transmission of the message from the sending client to the target client is performed  
5 essentially in real-time.

17. Method according to claim 15 or 16,  
characterized in that  
a conversion from the first transfer medium to the second transfer medium is performed  
10 depending on the target network, the message type and/or client preferences contained  
in the client database (2).

18. Method according to anyone of claims 15 to 17,  
characterized in that  
15 before the transmission to the target client, the content of the message is further  
processed by digital signing, encryption, watermarking and/or language translation.

19. Method according to anyone of claims 15 to 18,  
characterized in that  
20 a lifetime is attributed to each message and the message is only transmitted until the  
expiration of the lifetime.

20. Method according to anyone of claims 15 to 19,  
characterized in that  
25 the messages respectively contain a non-granted encrypted and a granted non-encrypted  
part.

21. Software program product,  
characterized in that  
30 when loaded into a computer, it implements a method according to anyone of claims 15  
to 20.